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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,289	12/09/2003	Hidefumi Niki	542-012.005	4923

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EXAMINER

JUBA JR, JOHN

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/731,289	Applicant(s) NIKI ET AL.	
	Examiner John Juba, Jr.	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/22/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Sanefuji, et al (U.S. Patent Appl. Pub. no. 2002/0001700 A1). Referring *for example* to “Example 1”, Sanefuji, et al disclose a polarizing film comprising a polyvinyl alcohol film. The recitation as to how the polarizing film was “obtained” is directed to the process of making the polarizer, rather than to the polarizer itself. In the instant case, the recited process limitations fairly convey that the polarizing film comprises a polyvinyl alcohol film, and arguably convey that the film has a smooth finish. Since the film of Sanefuji, et al has been cast onto a metal drum having a surface with “specular gloss” (para. [0023]), those of ordinary skill will appreciate that the resulting film has a surface specular gloss. Since the expression “specular gloss” would ordinarily not be ascribed to a surface having a roughness greater than 100 S, the examiner has reasonable belief that film of Sanefuji, et al also has a surface roughness not exceeding 100 S. Thus, the polarizing film of Sanefuji, et al appears to have every structural feature expressly recited or implied by the recited process limitations. If such is not the case, then applicant should present evidence that the prior art does not possess these characteristics. *In re Swinehart*, 169 USPQ 226 (CCPA, 1971).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent number 5,762,289) in view of TEIJIN LIMITED (EP 1162227 A1). Suzuki disclose a cylindrical core tube for winding plastic films wherein the core is formed of a fiber reinforced plastic or metal, and wherein the plastic film is PET or PVA (Col. 3, lines 20 – 25). Thus, although not set forth in one of the examples, Suzuki at least suggests a roll of a polyvinyl alcohol film obtained by winding up the polyvinyl alcohol film around a cylindrical core tube. The recitation of the film as having been formed from a solution of polyvinyl alcohol resin is directed to the manner in which the film is formed, rather than to the *structure* of the film itself. It is not clear how the manner in which the film is structurally different from the film of Suzuki. Thus, Suzuki discloses the roll of PVA film substantially as claimed. However, Suzuki does not disclose the metallic material of the core tube as having a surface roughness of at most 100 S.

In the same field of endeavor TEIJIN LIMITED disclose a roll of polyester obtained by winding up polyester film such as PET (para. 0011)) around a cylindrical core which may be of fiber reinforced plastic (para. [0022]). TEIJIN disclose that the

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surface roughness (Ra) of the core should not exceed 0.6 μm , or the surface roughness of the core will be transferred to the wound film.

It would have been obvious to one of ordinary skill to provide the metallic core of Suzuki with a surface roughness (Ra) not exceeding 0.6 μm , in the interest of preventing the core surface roughness from being imparted to the film, as suggested by TEIJIN. Suzuki teaches the equivalence of metal cores with fiber reinforced plastic cores for the purpose of winding PET, and teaches the equivalence of PVA and PET as wound films. The examiner believes that a surface roughness (Ra) not exceeding 0.6 μm corresponds to a surface roughness of approximately 12.5 S to 25 S.

With particular regard to claim 2, TEIJIN LIMITED suggest a maximum difference between the core maximum and minimum diameter of 0.2 mm (para. [0021]). As such, the examiner believes that the corresponding "roundedness" and "cylindricity" [as used in the present specification] necessarily fall within the claimed range.

With regard to claim 3, the film widths of Suzuki range from about 0.5 m to 3.0 m (as would correspond to the core length), and an exemplary outside diameter is given as 300 mm. TEIJIN LIMITED suggest roll diameters of 100 – 400 mm (para. [0021]). Given the overlap of the ranges disclosed in the prior art with those recited in the claim, it appears that, barring any *unexpectedly* improved result arising from selection of core outer diameter and core length, one of ordinary skill would have arrived at values lying within the recited ranges through only routine experimentation and optimization.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuzuhara, et al (U.S. Patent Appl. Pub. No. 2003/0156235 A1) disclose a method of solution coating a PVA layer on a PET film and performing a roll to roll lamination of the polarizing PVA film with a cellulose ester film that had been wound on a fiber reinforced plastic core.

Harita, et al (U.S. Patent Appl. Pub. No. 2001/0039319 A1) disclose a method of solution casting PVA, dyeing, stretching and borating the film to form a polarizer.

Edward Boyle (*Paper, Film & Foil Converter*) identifies ovality, straightness, surface waviness, and surface roughness as critical parameters surrounding the selection of a proper winding core in web processing applications. Paper and plastic cores are identified as cost effective.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 – 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.


JOHN JUBA, JR.
PRIMARY EXAMINER
Art Unit 2872

June 23, 2005